



Heat Illness Prevention

2010 Employer Training

Training Goals

- Increase awareness and commitment to safety and health at the work site.
- Review heat illness prevention and regulatory requirements.

Don't Take the Risk

Heat kills... your business!

- 16 jobsites were shut down in 2009 for imminent hazards due to heat
- Nearly \$ 2 million in penalties and 1158 citations issued in 2009
- District Attorneys may review these cases for criminal activity
- Bad press/media attention
- 41 confirmed heat illnesses and 1 confirmed heat fatality in 2009

Title 8 Section 3395

Heat Illness Prevention

Elements Include:

- Access to Water
- Access to Shade
- Written Procedures Including
Emergency Response
- Training

Access to Water:

Access to sufficient amounts of cool potable drinking water shall be available at all times, with at least one quart per employee per hour for the entire shift.

- **Provided at no cost to the workers.**



Effective Replenishment Procedures

- Designate a person(s) to periodically check the level of the water containers.
- Specify how often the containers will be checked.
- Ensure that the water is suitably cool.



Encourage the Frequent Drinking of Water!



**Remind
workers not
to wait until
they are
thirsty!**

When There is No Access to Shade



SERIOUS HAZARD: When the outdoor temperature in the work area exceed 85 degrees F, and no shade is present. YOU RISK A SERIOUS CITATION!

IMMINENT HAZARD: When the outdoor temperature in the work area exceed 90 degrees F, and no shade is present. YOU RISK GETTING SHUT DOWN (OPU)!

Access to Shade



Locate the shade structure as close as practicable to the areas where employees are working.

**Have and maintain one or more areas with shade.
Permit access to shade at all times.**

Encourage Employees to Use the Shade



Encourage employees to take a cool-down rest in the shade, for a period of no less than 5 minutes at a time.



“Rule of Thumb”: the amount of shade present should be at least enough to accommodate 25 percent of the employees on the shift at any time.

If Temperature is Below 85 °F



When the temperature does not exceed 85 degrees F, provide shade or timely access to shade upon request.

Does the shade structure introduce a hazard?



In situations where the employer can demonstrate that it is not safe or feasible to provide shade, an employer can utilize established procedures for providing shade upon request or, for non-agricultural employers, alternative cooling measures that provide equivalent protection.



Written Procedures

- **As long as they are effective, your Heat Illness Procedures can be integrated into the IIPP**
- **Maintain the procedures on site or close to the site, so that it can be made available to representatives of Cal/OSHA upon request.**

Written Procedures

Detail how your company will:

- Provide access to water & shade
- Monitor the weather
- Institute high heat procedures and address lack of acclimatization
- Train all employees and supervisors
- Respond to heat illnesses without delay, provide first aid and emergency services.
- Provide clear and precise directions to the worksite.

Ensure Access to Water & Shade

- Designate a person to ensure that sufficient quantity of water is provided and shade is open and set in place
- Specify that the water and shade be located as close as possible to the workers
- Spell out how often refills of water containers will take place
- Determine how workers will be encouraged to frequently drink water and use shade



Monitor the Weather

<http://www.nws.noaa.gov/>

- Instruct supervisors to track the weather of the job site [by monitoring predicted temperature highs and periodically using a thermometer.]
- Determine how weather information will be used to modify work schedule, increase number of water and rest breaks or cease work early if necessary

The screenshot displays the National Weather Service (NWS) website. At the top, the NOAA logo is on the left, and the text "National Oceanic and Atmospheric Administration's National Weather Service" is on the right. Below this, navigation links for "Site Map", "News", and "Organization" are present. The main content area is titled "California State Information" and features a map of California with various weather stations labeled, such as Eureka, Redding, Chico, Truckee, Ukiah, KMYV, Tahoe, Santa Rosa, Napa, Sacramento, Stockton, Modesto, San Francisco, San Jose, Merced, Bishop, Salinas, Fresno, Monterey, Porterville, Paso Robles, Bakersfield, Santa Maria, Mojave, Needles, Santa Barbara, Santa Ana, Los Angeles, KNSI, Oceanside, KMYF, KSEE, San Diego, and KNZY. To the right of the map is a grid of buttons for "Hourly Report", "Public Information", "State Forecast", "Climatic Data", "Zone Forecast", "Hydro Products", "Short Term Forecast", "Aviation Products", "Forecast Discussion", "Watches", "Weather Summary", and "Special Weather". Below the map, a text box says "Click on the above map for current site specific weather observations". At the bottom right, there is a button for "Warnings and Advisories" and a "Back to Main Lvl" button.

High Heat Procedures

When the temperature equals or exceeds 95 degrees Fahrenheit or during a heat wave, make absolutely sure you:

- Ensure effective communication (by voice, observation or electronic means)**
- Observe employees for alertness and signs and symptoms of heat illness**
- Give more frequent reminders to drink plenty of water**
- Closely supervise new employees, and all workers during a heat wave**



URGENT!

Address Lack of Acclimatization

- As an employer, you are responsible for the working conditions of your employees, so you must act effectively when conditions result in sudden exposure to heat that your workers are not used to.
- **Thus, determine how you will:**
 - lessen the intensity of the employees' work during a two-week break-in period
 - be extra-vigilant with new employees, and recognize immediately symptoms of possible heat illness

Address Lack of Acclimatization

- During a heat wave or sudden heat spike, determine how you will protect your workers from conditions resulting from sudden exposure to heat



Remember: training for employees and supervisors must include the importance of acclimatization, how it is developed, and how your procedures address it!

Employee & Supervisor Training

Ensure all employees and supervisors:

- Are trained before working outdoors in the heat
- Know and follow your company procedures

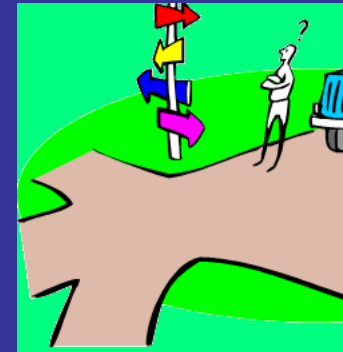




Emergency Response Procedures

To ensure that emergency assistance is provided without delay, plan in advance how you will:

- Immediately respond to symptoms of possible heat illness
- Contact emergency medical service providers
- Provide clear and precise directions to the worksite
- Ensure that emergency procedures are invoked when appropriate



Employee Training

PRIOR TO WORKING OUTDOORS!

- The environmental and personal risk factors for heat illness
- Your company's heat illness prevention procedures
- Importance of frequent consumption of small quantities of water
- Importance of acclimatization
- Different types of heat illness, common signs and symptoms



Employee Training

- Importance of immediately reporting signs or symptoms of heat illness to supervisor
- Procedures for responding to possible heat illness
- Procedures to follow when contacting emergency medical services and if necessary transporting employees
- Procedures that ensure clear and precise directions to the work site will be provided to emergency medical services





What You as a Supervisor Need to Do:

- Ensure employees are trained before working outdoors in the heat
- Ensure workers know and follow company procedures
- Closely supervise new employees for the first 14 days
- Monitor the weather at the site
- Remind workers to drink plenty of water

What You as a Supervisor Need to Do, cont.:

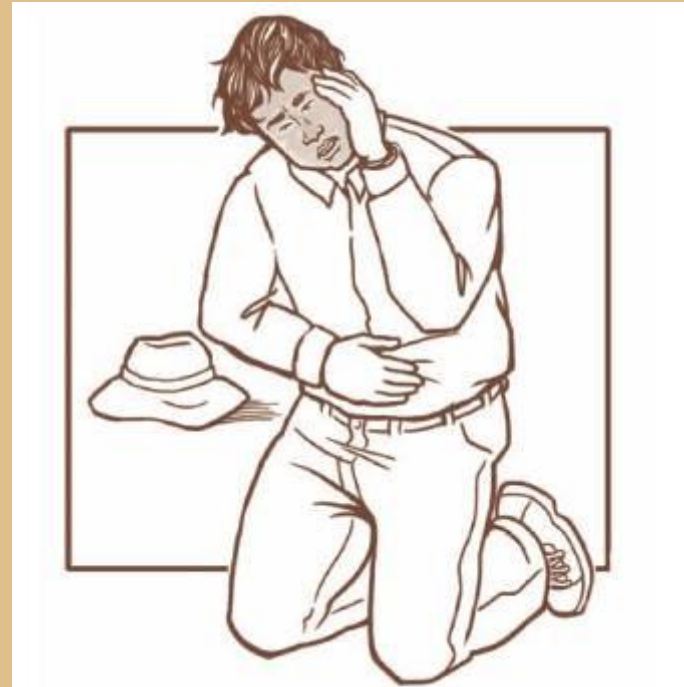
- Maintain effective communication with your crew at all times (by voice, observation or electronic means)
- Observe employees for alertness and signs or symptoms of heat illness
- Know what procedures to follow when a worker exhibits signs and symptoms of heat illness
- Respond to heat illness without delay: provide first aid and emergency services

Heat Illness Signs & Symptoms



Heat Exhaustion

Heavy sweating,
cramps, rapid
pulse,
headache,
nausea,
vomiting



Heat Stroke

Dry, red, hot skin,
fainting, high body
temperature,
disoriented,
confused

**NEED MEDICAL
HELP**

In Summary:

Heat Illness Prevention Elements
Include:

- Access to water
- Access to shade
- Written procedures including emergency response
- Employee and Supervisory Training

For Additional Information

Visit the Cal/OSHA Heat Illness Webpage:

<http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html>

DIR

Labor Law

Cal/OSHA

Workers' Comp

Apprenticeship

Statistics & Research

Mediation

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Media

Consultation | Enforcement | Heat Illness | IIPP | Partnerships | Payments | Permits | Postings | Statistics | Workplace Safety

I WANT TO . . .

→ See an index of DOSH services

→ Apply for a permit or registration

→ Learn about asbestos

→ Attend a meeting or workshop

→ Develop an injury & illness prevention program

→ File a health & safety complaint

→ Get information on safety

→ Know my rights

→ Obtain a free consultation

→ Report an accident or injury

→ See accident statistics

→ See available publications

→ Learn about elevator permits & safety

LINKS

→ Cal/OSHA Advisory Committee

Division of Occupational Safety and Health (DOSH) - Heat Illness Prevention

California employers are required to take these four steps to prevent heat illness

1. Training

Train all employees and supervisors about heat illness prevention.

2. Water

Provide enough fresh water so that each employee can drink at least 1 quart per hour, *and encourage them to do so.*

3. Shade

Provide access to shade for at least 5 minutes of rest when an employee believes he or she needs a preventative recovery period. *They should not wait until they feel sick to do so.*

4. Planning

Develop and implement written procedures for complying with the Cal/OSHA Heat Illness Prevention Standard.



Heat illness training

→ **UPDATE** [Heat Prevention seminars](#)

→ **NEW** [Heat Illness Prevention Training Powerpoint for Agricultural Employers \(English\), Spanish \(10 MB\)](#)

Cal/OSHA Consultation

How to reach us

Visit www.dir.ca.gov/dosh/consultation.html for a complete listing of our services.

Contact the nearest office:

Fresno	559-454-1295
Oakland	510-622-2891
Sacramento	916-263-0704
San Diego	619-767-2060
San Bernardino	909-383-4567
Santa Fe Springs	562-944-9366
San Fernando Valley	818-901-5754



State wide: 800-963-9424



Disclaimer

This is not meant to be either a substitute for or a legal interpretation of the occupational safety and health regulations. Users are cautioned to refer directly to Title 8 of the California code of Regulations and the Labor Code for detailed information regarding the regulation's scope, specifications, and exceptions and for other requirements that may be applicable to their operations.